



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/935,435	08/23/2001	Hans Muller	12287	9055

7590 02/28/2003  
DVORAK & ORUM  
53 West Jackson Boulevard  
Chicago, IL 60604-3606

EXAMINER

DEL SOLE, JOSEPH S

ART UNIT	PAPER NUMBER
----------	--------------

1722

DATE MAILED: 02/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

53

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/935,435	MULLER, HANS	
	<b>Examiner</b>	<b>Art Unit</b>	
	Joseph S. Del Sole	1722	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 10 is/are rejected.
- 7) ☒ Claim(s) 9 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
 If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
 a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____.  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____. | 6) <input type="checkbox"/> Other: _____.                                   |

## **DETAILED ACTION**

### ***Specification***

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

2. The abstract of the disclosure is objected to because **a)** the abstract is currently two paragraphs and must be rewritten as one; **b)** the phrases "The invention relates to an..." and "In accordance with the invention," can be implied and should be removed; **c)** "(Fig. 1)" should be removed from line 15 so that it is not mistakenly considered as part of the abstract should the invention go to publication. Correction is required. See MPEP § 608.01(b).

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

### **Arrangement of the Specification**

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.

- (c) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.
  - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (d) BRIEF SUMMARY OF THE INVENTION.
- (e) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (f) DETAILED DESCRIPTION OF THE INVENTION.
- (g) CLAIM OR CLAIMS (commencing on a separate sheet).
- (h) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).

#### **Content of Specification**

- (a) Title of the Invention: See 37 CFR 1.72(a) and MPEP § 606. The title of the invention should be placed at the top of the first page of the specification unless the title is provided in an application data sheet. The title of the invention should be brief but technically accurate and descriptive, preferably from two to seven words may not contain more than 500 characters.
- (b) Cross-References to Related Applications: See 37 CFR 1.78 and MPEP § 201.11.
- (c) Background of the Invention: See MPEP § 608.01(c). The specification should set forth the Background of the Invention in two parts:
  - (1) Field of the Invention: A statement of the field of art to which the invention pertains. This statement may include a paraphrasing of the applicable U.S. patent classification definitions of the subject matter of the claimed invention. This item may also be titled "Technical Field."
  - (2) Description of the Related Art including information disclosed under 37 CFR 1.97 and 37 CFR 1.98: A description of the related art known to the applicant and including, if applicable, references to specific related art and problems involved in the prior art which are solved by the applicant's invention. This item may also be titled "Background Art."
- (d) Brief Summary of the Invention: See MPEP § 608.01(d). A brief summary or general statement of the invention as set forth in 37 CFR 1.73. The summary is separate and distinct from the abstract and is directed toward the invention rather than the disclosure as a whole. The summary may point out the advantages of the invention or how it solves problems previously existent in the prior art (and preferably indicated in the

Art Unit: 1722

Background of the Invention). In chemical cases it should point out in general terms the utility of the invention. If possible, the nature and gist of the invention or the inventive concept should be set forth. Objects of the invention should be treated briefly and only to the extent that they contribute to an understanding of the invention.

- (e) Brief Description of the Several Views of the Drawing(s): See MPEP § 608.01(f). A reference to and brief description of the drawing(s) as set forth in 37 CFR 1.74.
- (f) Detailed Description of the Invention: See MPEP § 608.01(g). A description of the preferred embodiment(s) of the invention as required in 37 CFR 1.71. The description should be as short and specific as is necessary to describe the invention adequately and accurately. Where elements or groups of elements, compounds, and processes, which are conventional and generally widely known in the field of the invention described and their exact nature or type is not necessary for an understanding and use of the invention by a person skilled in the art, they should not be described in detail. However, where particularly complicated subject matter is involved or where the elements, compounds, or processes may not be commonly or widely known in the field, the specification should refer to another patent or readily available publication which adequately describes the subject matter.
- (g) Claim or Claims: See 37 CFR 1.75 and MPEP § 608.01(m). The claim or claims must commence on separate sheet (37 CFR 1.52(b)). Where a claim sets forth a plurality of elements or steps, each element or step of the claim should be separated by a line indentation. There may be plural indentations to further segregate subcombinations or related steps. See 37 CFR 1.75 and MPEP § 608.01(i)-(p).
- (h) Abstract of the Disclosure: See MPEP § 608.01(f). A brief narrative of the disclosure as a whole in a single paragraph of 150 words or less commencing on a separate sheet following the claims. In an international application which has entered the national stage (37 CFR 1.491(b)), the applicant need not submit an abstract commencing on a separate sheet if an abstract was published with the international application under PCT Article 21. The abstract that appears on the cover page of the pamphlet published by the International Bureau (IB) of the World Intellectual Property Organization (WIPO) is the abstract that will be used by the USPTO. See MPEP § 1893.03(e).

***Claim Objections***

3. Claims 1-3 are objected to because of the following informalities: a) the reference numerals appear to be inconsistently used, for instance in claim 1 (6) refers to a remaining part, in claim 2 (6) refers to an attachment, in claim 2 and in claim 3 (6) refers to a threaded connection while (7) in claim 2 also refers to the remaining part. Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 2 and 4-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Gaiser et al (4,412,806).

Gaiser et al teach an arrangement for a two stage ejector, with a follow on action, (Fig 3) capable of installation centrally in a molding tool (the actuator rod, Fig 3, #48 is centrally installed); having a rear ejector part (Fig 3, #48) exhibiting connecting means (Fig 1, see #48) for attachment of the ejector to an injection molding machine and is capable of detachable attachment to the remaining part (Fig 3, #70) of the ejector; the attachment between the rear ejector part and the remaining part of the ejector is in the form of a threaded connection (Fig 3, the threaded connection between #48 and #70); the rear ejector part is displaced through a transcurrent opening (Fig 3, the opening in #52) in the mold; the form of the aforementioned opening is adapted to the front end

part of the aforementioned rear ejector part (Fig 1 and 3); the aforementioned rear ejector part exhibits an enlarged accommodating part to accommodate the rear end of an adjacent part of the ejector part (Fig 3).

For clarification, "for a two stage ejector, with a follow-on action" is functional language that does not necessarily have structural weight and for purposes of this rejection, a two stage ejector is an ejector that utilizes two separate steps to eject. The two sets of arrows in Fig 6a demonstrate the two steps of ejection in this reference.

6. Claims 1 and 4-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Cane et al (4,372,741).

Cane et al teach an arrangement for a two stage ejector, with a follow on action, (Fig 1) capable of installation centrally in a molding tool (the ejector pin, Fig 1, #80 is centrally installed); having a rear ejector part (Fig 1, #76 and 80) exhibiting connecting means (Fig 1, the connector between #77 and #82) for attachment of the ejector to an injection molding machine and is capable of detachable attachment to the remaining part (Fig 1, #68) of the ejector; the rear ejector part is displaced through a transcurrent opening (Fig 1, the opening in #22) in the mold; the form of the aforementioned opening is adapted to the front end part of the aforementioned rear ejector part (Fig 1); the aforementioned rear ejector part exhibits an enlarged accommodating part to accommodate the rear end of an adjacent part of the ejector part (Fig 1); an attachment part (Fig 1, #77) for detachable attachment of the ejector to an ejector plate (Fig 1, #22) situated to its rear, is accommodated with a flange part (Fig 1, the part of #76 attached

to #77) on the front end of the aforementioned rear ejector part; the attachment part is in the form of a sleeve of irregular shape (the threads create an irregular shape).

For clarification, "for a two stage ejector, with a follow-on action" is functional language that does not necessarily have structural weight and for purposes of this rejection, a two stage ejector is an ejector that utilizes two separate steps two eject. The two steps of ejection in this reference include the force from #80 and the removal of containment from the movement of #54). Also, in order for the opening to be adapted to the front end part, it merely must be large enough for the front end part to fit through it.

7. Claims 1, 4-6 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Japanese Patent (4-128020).

Japanese Patent (4-128020) teaches an arrangement for a two stage ejector, with a follow on action, (Fig 1) capable of installation centrally in a molding tool (the ejector pin, Fig 1, #35 is centrally installed); having a rear ejector part (Fig 1, #35 and #32) exhibiting connecting means (Fig 1, the connection between #35 and #13) for attachment of the ejector to an injection molding machine and is capable of detachable attachment to the remaining part (Fig 1, #33) of the ejector; the rear ejector part is displaced through a transcurrent opening (Fig 1, the opening in #20) in the mold; the form of the aforementioned opening is adapted to the front end part of the aforementioned rear ejector part (Fig 1); the aforementioned rear ejector part exhibits an enlarged accommodating part to accommodate the rear end of an adjacent part of the ejector part (Fig 1); and the rear ejector part exhibits an internal attachment part for



Art Unit: 1722

detachable attachment to an injection molding machine (Fig 1) to accommodate a part (Fig 1, #9) of a piston situated at the front of the telescopic ejector arrangement.

For clarification, "for a two stage ejector, with a follow-on action" is functional language that does not necessarily have structural weight and for purposes of this rejection, a two stage ejector is an ejector that utilizes two separate steps two eject. The two steps of ejection in this reference include the separate movements of #26 and #29. Also, in order for the opening to be adapted to the front end part, it merely must be large enough for the front end part to fit through it.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gaiser et al (4,412,806) in view of Brown (4,496,302).

Gaiser et al teach the apparatus as discussed above.

Gaiser et al fail to teach an internal thread in the aforementioned rear ejector part is so arranged as to enclose and accommodate an external thread in a remaining part of the threaded connection.

Brown teaches the connection of two ejector parts in an injection apparatus wherein a rear ejector part (Fig 1, #74) has an internal part to enclose an external thread in a remaining part of the threaded connection (Fig 1, at #75, the Examiner notes that "theaded connection (6) is interpreted as equivalent to the "remaining part (6)" as defined in claim 1) for the purpose of detachably attaching and connecting two ejector parts.

It would have been obvious to one having ordinary skill in the art at the time of the Applicant's invention to have modified the invention Gaiser et al with the rear ejector part having an internal threaded (rather than an external thread) for detachable attachment to the remaining part of the ejector as taught by Brown because internal/external threads are an obviously equivalent to external/internal threads.

***Allowable Subject Matter***

11. Claim 9 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

12. The following is a statement of reasons for the indication of allowable subject matter: the prior art of record fails to teach or suggest an attachment part (as represented by numeral 17) secured by means of screws to the rear ejector plate, in combination with the limitations of the parent claims.

Art Unit: 1722

**Correspondence**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph S. Del Sole whose telephone number is (703) 308-6295. The examiner can normally be reached on Monday through Friday from 8:30 A.M. to 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ms. Wanda Walker, can be reached at (703) 308-0457. The official fax phone number for the organization where this application or proceeding is assigned is (703) 872-9310 for non-after finals and (703) 872-9311 for after finals.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

*Joseph Del Sole*

J.S.D.  
February 19, 2003

*[Signature]*

ROBERT DAVIS  
PRIMARY EXAMINER  
GROUP 1300-1722

2/21/03